```java
import java.io.*;

import java.awt.*;

import javax.imageio.ImageIO;

import java.awt.image.BufferedImage;


public class ATCCode

{

  public static void main(String args[]) throws IOException

    {

        File file= new File("20YABrainMRIAxialT2Dark.jpg");

        BufferedImage image = ImageIO.read(file);


//Shadow, Black (2014) GetPixelColor [Source code]


//<https://stackoverflow.com/questions/22391353/get-color-of-each-pixel-of-an-image-using-bufferedimages>.

        boolean noAbnormalityDetected = false;


        int width = image.getWidth()-1;


//One is subtracted from the width because pixels start at 0,0.

        int height = image.getHeight()-1;


//One is subtracted from the height because pixels start at 0,0.


        System.out.println("The width is " + width + " and the height is " + height + ".");


    if(width!=529||height!=639)
```

```
      System.out.println("The dimensions of the choosen MRI do
not match the specifications of the program. Please fit the MRI
to 5291X6101 and re-compile.");
    else
    {


      for(int i = 0; i <= width; i++)

//Increases width by one.
        {


          for(int j = 0; j<= height; j++)

//Increases height by one.
              {


noAbnormalityDetected =  false;

int color=  image.getRGB(i,j);

//Width goes first, then height.

int  red   = (color & 0x00ff0000) >> 16;

//Masks all colors except for red, then moves the value 16
spaces over.
```

```java
int  green = (color & 0x0000ff00) >> 8;

//Masks all colors except for green, then moves the value 8
spaces over.

int  blue  =  color & 0x000000ff;

//Masks all colors except for blue.

//Shadow, Black (2014) GetPixelColor [Source code]
//<https://stackoverflow.com/questions/22391353/get-color-of-eac
h-pixel-of-an-image-using-bufferedimages>.

//System.out.println("The pixel at " + i + "," + j + " has a red
value of " + red + ", a green value of " + green + ", and a blue
value of " + blue + ".");

                 //Values associated with the color white

if((red>228&&red==green&&green==blue)||(red>=240&&green>245&&blu
e>240)||(red>=217&&red<228)&&(green==red)&&(blue==green))
                {

if((i==120)&&(291<=j&&j<=233))
                {

noAbnormalityDetected =  true;
                }
                else if((159<=i&&i<=162)&&(426<=j&&j<=431))
```

```
                {
       noAbnormalityDetected =  true;
             }


          else if((179<=i&&i<=181)&&(894<=j&&j<=501))

             {
       noAbnormalityDetected =  true;
             }


          else if(i==235&&j==386)

             {
     noAbnormalityDetected =  true;
             }


          else if((236<=i&&i<=241)&&(381<=j&&j<=395))

             {
   noAbnormalityDetected =  true;
             }


          else if(i==241&&j==402)

             {
       noAbnormalityDetected =  true;
             }


          else if((242<=i&&i<=243)&&(383<=j&&j<=409))

             {
        noAbnormalityDetected =  true;
             }
```

```
    else if(244==i&&(384<=j&&j<=414))

       {

  noAbnormalityDetected =  true;

       }


    else if((245<=i&&i<=246)&&(385<=j&&j<=420))

       {

noAbnormalityDetected =  true;

       }


    else if((247<=i&&i<=252)&&(398<=j&&j<=428))

       {

  noAbnormalityDetected =  true;

       }


    else if((253<=i&&i<=257)&&(407<=j&&j<=416))

       {

  noAbnormalityDetected =  true;

       }


    else if((253<=i&&i<=255)&&(430<=j&&j<=433))

       {

  noAbnormalityDetected =  true;

       }


    else if((259==i)&&(393<=j&&j<=394))

       {

   noAbnormalityDetected =  true;

       }
```

```
       else if((260==i)&&(325<=j&&j<=326))

       {
noAbnormalityDetected =  true;
       }


       else if((260<=i&&i<=264)&&(392<=j&&j<=406))

       {
noAbnormalityDetected =  true;
       }


       else if((262<=i&&i<=264)&&(348<=j&&j<=353))

       {
noAbnormalityDetected =  true;
       }


       else if((265<=i&&i<=266)&&(134<=j&&j<=136))

       {
noAbnormalityDetected =  true;
       }


       else if((265<=i&&i<=277)&&(402<=j&&j<=426))

       {
noAbnormalityDetected =  true;
       }


       else if((271<=i&&i<=282)&&(380<=j&&j<=393))

       {
noAbnormalityDetected =  true;
```

```java
                    }

                else if((i==406)&&(j==268))
                    {
                noAbnormalityDetected =  true;
                    }


                            }



if(noAbnormalityDetected=false)
                            {


 System.out.println("An abnormality has been detected. Please
review the MRI.");


                            }
                    }
                }
                }
            }
        }
```